

PLAGUE

What is Plague?

Plague is caused by bacteria, *Yersinia pestis*, which are carried by fleas that feed on infected rodents. Human plague is very rare, but when a person does get plague, it usually occurs during summer months, when people are active outdoors and flea activity is greatest.

Who gets plague?

Anyone can get plague. However, people in occupations such as laboratory work, geology, or biology may have more contact with infected rodents and fleas. Young people under the age of 20 also seem to have a greater risk. Possible reasons for plague in young people may be:

1. Young people are more active and inquisitive and may be more likely to find and play with a sick or dead rodent.
2. Children are more likely to play where rodents live.
3. Young people may have more contact with pets that may carry infected fleas.
4. Teenage boys have more contact with rodents and their fleas because of hunting and other outdoor activities.

How is plague spread?

The most common source of plague in humans has been the bite of infected fleas. Other sources include the handling of tissues of infected animals, especially rodents and rabbits. Domestic pets, particularly house cats, may carry plague-infected fleas into homes and occasionally spread infection by their bites or scratches. Occasionally, cats or humans infected with plague pharyngitis or pneumonia may spread plague in airborne droplets. Unsafe laboratory practice with cultures can also result in plague.

What are the symptoms of plague?

Plague appears in man in one of three forms. Bubonic plague is the most common. Septicemic plague is the second form and occurs when bacteria enter the blood stream. The third form is pneumonic plague, which occurs when infection moves to the lungs.

Symptoms of bubonic plague include high fever, chills, fatigue, headaches, delirium, nausea, vomiting, diarrhea, coma, and death, if not diagnosed. The most distinctive symptom is swelling of the lymph nodes in the groin, armpits, or neck. The swollen lymph nodes are called buboes. These become painful, pus-filled, and may rupture and ooze fluid.

Symptoms of septicemic plague are similar to bubonic, only without an increase in the size of the lymph nodes. This form can be serious because it can be difficult to diagnose.

Symptoms of pneumonic plague include cough, bloody sputum, high fever, and chills. Any form of plague can be fatal if not treated. Septicemic and pneumonic plague are more often fatal than bubonic because they are harder to recognize. Fortunately, these types of plague are less common.

How soon after infection do symptoms appear?

Symptoms usually start two to six days after exposure for bubonic plague and two to four days after exposure for pneumonic plague.

What is the treatment for plague?

Plague may be treated with antibiotics. Streptomycin is the drug of choice. Doxycycline and ciprofloxacin are also effective.

How can plague be prevented?

1. Wear long sleeved shirts and long pants, and tuck pant legs into socks when camping or hiking.
2. Stay on trails when hiking. Do not investigate, go near, or disturb prairie dog burrows.
3. Do not touch or interact with wild squirrels, rodents, etc. Don't attempt to care for sick rodents.
4. Use insect repellents containing DEET on your skin or pyrethrin on your clothing. Be sure to follow the directions on the container and wash off repellents when going indoors.
5. Report large numbers of dead or sick rodents to your local or state health department.
6. Keep your pets free of fleas (especially in areas where plague is present).

Where can I get more information?

- Your personal doctor
- Your local health department, listed in the telephone directory
- The Utah Department of Health, Bureau of Epidemiology (801) 538-6191